

The 1997 Pregnancy Nutrition Surveillance Executive Summary

The state of Missouri has participated in the Pregnancy Nutrition Surveillance System (PNSS) since 1989. The PNSS was established in 1979 by the Division of Maternal and Child Health, Centers for Disease Control and Prevention (CDC). The PNSS has monitored behavioral and nutritional risk factors among low-income pregnant women enrolled in public health programs such as the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). A total of 43,177 prenatal and postpartum records from WIC clinics in 114 counties and St. Louis City were submitted to CDC for data analysis in 1997.

This report was prepared based on Missouri's data analyzed by CDC. It provides:

- Overall health, nutrition, and behavioral status of Missouri WIC program participants in 1997;
- Comparison on prevalence rates of health, nutrition, and behavioral indicators and demographic information among the districts in 1996 and 1997;
- Progress of the Missouri WIC program toward meeting the Healthy People 2000 and Healthy Missourians 2000 objectives; and
- Information on nutrition and behavioral status of low-income women to aid health professionals in program planning.

Maternal Demographic Characteristics

In 1997, of the 43,177 participants in the Missouri PNSS, 71.9% were White, 24.1% Black, 3.0% Hispanic, 0.8% Asian, and 0.2% American Indian. The proportion of Hispanics has increased from 1.6% in 1994 to 3.0% in 1997, respectively. The proportion of unmarried mothers has increased from 62.8% in 1994 to 64.1% in 1997. The proportion of teenage mothers has decreased from 28.7% in 1994 to 27.7% in 1997. The proportion of women who had less than a high school education has increased from 36.4% in 1994 to 37.1% in 1997.

Maternal Behavioral and Nutrition Risk Factors

Prenatal Medical Care: The proportion of women reported having begun prenatal care in the first trimester has consistently increased from 65.3% in 1994 to 82.7% in 1997. Although the Healthy People 2000 objective to increase to at least 90% the proportion of all pregnant women who received prenatal care in the first trimester of pregnancy has not yet been met, progress has been made in this indicator.

Entry to WIC program: The proportion of women enrolled in the WIC program during their first trimester consistently increased from 32.7% in 1994 to 38.0% in 1997.

Prepregnancy Weight Status: Prepregnancy body mass index (BMI) was assessed for each woman. The prevalence of overweight ($BMI > 26.0$) has increased from 33.8% in 1994 to 38.3% in 1997. The prevalence rate for underweight women before pregnancy has decreased from 18.5% in 1994 to 16.0% in 1997. In 1997, Black and American

Indian populations had high overweight prevalence rates, 45.5% and 46.4%, respectively.

Gestational weight gain: The proportion of women who had the minimum recommended weight gain during pregnancy has increased from 75.0% in 1994 to 76.9% in 1997. The Healthy People 2000 health objectives to increase to 85% the proportion of women who gain the minimum recommended weight during pregnancy has not been met in all districts. Caution is needed in interpreting gestational weight gain because the results are based on self-reported prepregnancy weight status data that may be biased.

Anemia: The prevalence of anemia during pregnancy has steadily decreased from 17.6% in 1994 to 14.5% in 1997. Rates of anemia during pregnancy among districts varied, ranging from about 8.9% in the Southwest District to 22.2% in the Eastern District. The Healthy Missourians 2000 objective to reduce the prevalence of anemia among pregnant women to less than 15% has been met in the Missouri PNSS population.

In 1997, the prevalence rates for anemia among black mothers in the first, second, and third trimesters and postpartum are still high: 18.8%, 25.6%, 56.9%, and 71.2%, respectively. The Healthy People 2000 health objective to reduce anemia among low-income black women in the third trimester of pregnancy to at least 20% has not been achieved. The overall prevalence of anemia among postpartum women in the Missouri PNSS has decreased from 48.3% in 1994 to 43.4% in 1997.

Smoking: The prevalence rate for self-reported smoking before pregnancy in the Missouri PNSS population has increased from 34.4% in 1994 to 38.9% in 1997. The rate for smoking during pregnancy has decreased from 28.1% in 1994 to 26.3% in 1997. The high prevalence rates for smoking before pregnancy was found among white women (47.2%), women aged 16-19 years (42.1%), women with a high school education or less (47.5%), and unmarried women (42.5%).

Drinking: In the Missouri PNSS, the prevalence rate for self-reported drinking during the three months before pregnancy has slightly increased from 10.6% in 1994 to 11.6% in 1997. In 1997, 1.1% of mothers reported drinking during the last three months of pregnancy.

Birth Outcomes

High Birthweight: In the 1997 Missouri PNSS, about 8.2% of infants were of high birthweight. The rates for high birthweight babies in 1994, 1995, and 1996 were 8.3%, 8.1%, and 8.2% respectively.

Low Birthweight: In 1997, 9.2% of infants born to women in the Missouri PNSS were low birthweight (<2,500 g). The rate for low birthweight was slightly decreased from 9.3% in 1994 to 9.2% in 1997. The low birthweight rate among black babies has increased from 10.6% in 1996 to 11.4% in 1997, while an increase was not noted

among other ethnic groups. The Healthy People 2000 objective to reduce low birthweight to an incidence of no more than 5% of live births and very low birthweight to no more than 1% of live births has not been met in the Missouri PNSS population.

Prematurity: In the 1997 Missouri PNSS, incidence rate for preterm babies (less than 37 weeks gestation) has slightly decreased from 11.6% in 1994 to 11.1% in 1997. However, rate for low birthweight among preterm babies has increased from 40.0% in 1994 to 41.8% in 1997. Preterm babies were 10 times more likely to be low birthweight than were infants born at term. The rate of premature births ranged from 7.8% in the Northwest/Cameron District to 13.6% in the Eastern District in 1997.

Infant Feeding Practices

In the 1997 Missouri PNSS, 42.0% of infants were ever breastfed. Although black mothers were the least likely to breastfeed their babies, the breastfeeding initiation rate in the black population has increased from 21.1% in 1994 to 29.9% in 1997. Progress has been made by increasing the breastfeeding initiation rate from 37.3% in 1994 to 42.0% in 1997; however, the Year 2000 objective to increase to at least 75% the proportion of mothers who breastfeed their babies in the early postpartum period has not been met in the Missouri PNSS population.

Conclusion

The Healthy Missourians 2000 objective to decrease the overall prevalence of anemia among pregnant women to less than 15% was successfully achieved in the 1997 Missouri PNSS population. Although all districts have made progress, neither the Eastern nor Northwest/Metro districts have yet met the state goal.

Progress toward the Healthy People 2000 and Healthy Missourians 2000 health objectives pertaining to teenage pregnancy, prepregnancy overweight among women aged 20 years or older, minimum recommended weight gain during pregnancy, prevention of anemia among black women in the third trimester, smoking cessation during pregnancy, decreased incidence of low birthweight, and increased breastfeeding has been made. However, these objectives have not yet been achieved in the Missouri PNSS population.

To meet the national and state health objectives for maternal and child nutrition in low-income populations, more concerted efforts are needed to deliver nutrition and health messages and to strengthen the delivery of support services. Also, intervention strategies that target the reduction of risk factors among high risk populations should be developed and implemented.